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ASSOCIATES,
INC.

Geoenvironmental Engineering and Technologies

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April 9, 1990

Mr. Mike Kuntz
Washington State Department of Ecology
M/S PV-11
Olympia, WA 98504-8711

**RE: PROGRESS REPORT
COLBERT LANDFILL RD/RA
MARCH 1990**

Dear Mr. Kuntz:

Presented herein is the March 1990 Progress Report for the Colbert Landfill RD/RA Superfund Project (Project), which was prepared by Landau Associates, Inc. (Landau Associates), Spokane County's engineering consultant. It addresses the reporting requirements specified in Section XI of the Project Consent Decree, including:

- A description of remedial action activities commenced or completed during the reporting period
- Remedial action activities projected to be commenced or completed during the next reporting period (through April 1990)
- Any problems that have been encountered or are anticipated in commencing or completing the activities.

1.0 ACTIVITIES COMMENCED/COMPLETED DURING REPORTING PERIOD

Several activities were commenced and/or completed during the reporting period. Most of these activities are related to continuation of Phase I field activities. Specifically, activities commenced and/or completed during this period include:

- Well construction activities have commenced, been completed, and are ongoing at a number of Phase I well locations (refer to attached Site Plan, Figure 1).
- Monitoring Well CD-24 was completed. The well is located about 80 feet west of Pilot Well CP-E1, and is screened in the Lower Sand/Gravel Aquifer from about 230 to 250 feet below ground surface (BGS).

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- The boring for Monitoring Well CD-25 was completed. The boring is about 80 feet north of Monitoring Well CD-20, and was originally intended as a boring for Pilot Well CP-E2. However, the Basalt Aquifer was not sufficiently transmissive at this location (steady-state yield estimated at about 2 gpm, based on bail test) to warrant an extraction well. Consequently, a new pilot well location was selected about 20 feet north of Monitoring Well CD-20, and the original pilot well boring will be used for installation of Monitoring Well CD-25.
- The boring for Monitoring Well CP-E1 was completed. Granite was encountered underlying the Lower Sand/Gravel Aquifer at a depth of about 289 feet BGS, and the boring was terminated at a depth of 305 feet BGS. The well will be screened in the Lower Sand/Gravel Aquifer from about 235 to 245 feet BGS.
- Pilot Well CP-E2 was completed. The boring was advanced to 196 feet BGS, and the Basalt Aquifer is present from a depth of about 139 to 194 feet BGS (static water level about 148 feet BGS); the steel casing extends to a depth of about 180 feet BGS. A preliminary bail test was accomplished for the boring, and the Basalt Aquifer appears to be sufficiently transmissive at this location (transmissivity estimated at about 200 ft²/day) to warrant completion as a pilot extraction well.
- Exploratory Boring CB-100 was completed. The boring was initially intended for construction of an additional Phase I monitoring well for the Lower Sand/Gravel Aquifer (CD-26). However, the Lower Sand/Gravel Aquifer was not saturated at this location and its base was encountered at a depth of about 143 feet BGS, approximately 40 feet above the anticipated piezometric level (for the Lower Sand/Gravel Aquifer). The boring was advanced to a total depth of 221 feet, but only low-permeability soil was encountered below the Lower Sand/Gravel Aquifer. Consequently, a monitoring well was not installed at this location and the boring was abandoned using bentonite grout for backfill. An alternative monitoring well location has been selected about 700 feet south of CB-100, contingent upon obtaining property access.
- Well development for Monitoring Well CD-24 was completed.
- Ground water samples were collected and analyzed for volatile organic compounds from the (b) (6) domestic wells.
- The geophysical survey was completed March 4, 1990. Vertical electrical soundings (VES) were collected at 20 locations. Data were inconclusive and did not warrant continuation of the survey. An interpretative report summarizing the survey will be completed in about two weeks.
- A technical meeting was held March 19, 1990 to discuss preliminary Phase I geohydrologic and chemical data, and proposed locations for additional Phase I monitoring wells. The meeting was attended by representatives of EPA, Ecology, Ecology and Environment, and Landau Associates. EPA and

Ecology concurred with the County-selected locations for four additional Phase I monitoring wells (CD-26, CD-44, CD-45, and CD-46).

2.0 ACTIVITIES PROJECTED TO BE COMMENCED/COMPLETED DURING NEXT REPORTING PERIOD

As specified in the Schedule For Submittal Of Deliverables, the next reporting period extends through April 1990. Anticipated activities for April include continuation of well construction activities, ground water sampling and analysis, and submittal of the Phase I Treatment and Discharge Plan. Specific activities anticipated to be commenced/completed during the next reporting period include:

- Complete construction of Monitoring Well CD-25. The well will be completed in the Basalt Aquifer, and will be screened about 180 feet BGS (early April).
- Complete Monitoring Well CD-33. The well will be completed in the Upper Sand/Gravel Aquifer about 15 feet south of Pilot Well CP-S1, and will be screened at a depth of about 100 feet BGS (by mid-April).
- Complete Monitoring Well CD-44. The well will be completed in the Lower Sand/Gravel Aquifer. The estimated total boring depth is about 300 feet BGS (by late April).
- Complete Monitoring Well CD-45. The well will be completed in the Lower Sand/Gravel Aquifer. The estimated total boring depth is about 300 feet BGS (by late April).
- Complete Pilot Well CP-E1 (by early April).
- Complete Pilot Well CP-S1. The well will be completed to a total depth of about 110 feet BGS and will be screened in the Upper Sand/Gravel Aquifer from about 100 to 105 feet BGS. Because of limited available drawdown and poorly graded aquifer material, the well will be constructed with a sandpack (by late April).
- Complete development of Wells CD-25, CD-33, CP-E1, CP-E2, and CP-S1 (by late April).
- Initiate ground water sampling for Wells CD-24, CD-25, CD-33, CP-E1, CP-E2, and CP-S1 (tentative, by late April).
- Submit the Phase I Treatment and Discharge Plan for EPA/Ecology review and approval (by late April).
- Submit the geophysical survey interpretative report (by late April).

3.0 ENCOUNTERED/ANTICIPATED PROBLEMS

No significant problems were encountered during March. However, property access may become a problem for some of the additional Phase I monitoring well locations. Three of the proposed locations (CD-26, CD-45, and CD-46) are on Glacier Park property. Glacier Park has indicated verbally that permission will be granted for two of the sites (CD-45 and CD-46), although written permission has not yet been obtained. The third site (CD-26) has only recently been identified and a request for property access is being prepared for submittal to Glacier Park. Based on the present rate of well construction progress, field activities could be delayed if final approval for property access is not provided by Glacier Park in a timely manner, or if unreasonable conditions are placed upon access. EPA/Ecology will be kept appraised of property access developments.


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This progress report describes the major remedial action activities commenced or completed during the reporting period, anticipated to be commenced or completed during the next reporting period, and any problems encountered or anticipated. As such, there are secondary and peripheral activities associated with these major tasks that are not described herein. If clarification is required for any of the activities presented in this progress report or if additional information is desired for secondary or peripheral activities, please contact me or Dean Fowler (Spokane County).

Very truly yours,

LANDAU ASSOCIATES, INC.

By:


Lawrence D. Beard, P.E.
Project Manager

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Distribution: Neal Thompson, EPA ✓
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Lyle Diedieker, Ecology & Environment

